

The Max Planck Institute for Biogeochemistry in Jena is an internationally renowned research institution with currently about 220 employees and is dedicated to basic research in the field of Earth system sciences with a focus on climate and ecosystems. We are looking for the
01.09.2020

PostDoc opportunity in biosphere modelling (m/f/d)

(Full time, limited in time 31.08.2021)

Background and position description:

The department of Biogeochemical Signals (BSI) at the MPI for Biogeochemistry in Jena, Germany, conducts research to better understand the manifold interactions between terrestrial biogeochemistry and climate. One focus is the study of the coupled terrestrial carbon, nitrogen, and phosphorus cycles and their response to global change. The research in this area encompasses detailed studies of soil dynamics, ecosystem experimentation, as well as theoretical and applied ecosystem/biosphere modelling.

The research of the terrestrial biosphere modelling group (TBM) in the BSI department focuses on the development and evaluation of large-scale terrestrial biosphere models, and in particular the importance of the biogeochemical nutrient cycles for land-climate feedbacks. Our main funding stems from an ERC consolidator grant (“Quantifying the effects of interacting nutrient cycles on terrestrial biosphere dynamics and their climate feedbacks”; QUINCY), in which we seek to develop the next-generation of nutrient-enabled land surface models.

To further advance the integration of observations and modelling, and in particular our ability to simulate the interactions of carbon and phosphorus cycles at regional scales and decadal ecosystem development we are looking to recruit 1 PostDoc (f/m/d) specialising in tropical phosphorus cycling and process-based biogeochemical modelling (1 year, with the possibility of extension)

Tasks:

- synthesise existing data-bases and literature to describe the variation of phosphorus availability and cycling across the tropics
- work with the QUINCY modelling team to link process-based and empirical insights to representations in biogeochemical models
- assess the control of P availability on decadal projections of tropical carbon cycle and storage using biogeochemical models
- lead and contribute to publications in international scientific journals and represent the research group in national and international meetings

Qualifications:

- PhD degree in a quantitative natural science (e.g. geo-ecology, environmental science, biology, or applied mathematics)

- profound knowledge of carbon-phosphorus dynamics and tropical ecology, as well as ecosystem modelling, and global biogeochemistry
- very good analytical and programming skills
- demonstrated ability to write publications in scientific journals, preferably in the field of soil and plant sciences
- very good communication and organisational skills
- very good knowledge of English

Our Offer:

The successful applicant will join a young and international team in a vibrant research environment, encompassing experimental and theoretical work on the role of the biogeochemical cycles of carbon, nitrogen and phosphorus in the Earth system. The department has established an extensive network of international collaborations in Europe, the U.S. and Australia.

Jena is not only famous for its high-tech industry, internationally renowned research institutions and a modern university, but also for its beautiful natural setting in the Saale valley with its steep limestone slopes. The city of Jena has a large active student scene supporting a diverse cultural life.

The conditions of employment, including upgrades and duration follow the rules of the Max Planck Society for the Advancement of Sciences and those of the German civil service.

The Max Planck Society strives for equality between women and men and for diversity. In addition, the Max Planck Society wants to increase the proportion of women in those areas in which they are underrepresented. Women are therefore expressly encouraged to apply. We welcome applications from all areas.

The Max Planck Society has set itself the goal of employing more severely disabled people. Applications from severely disabled persons are expressly welcome.

Your Application:

Please send your inquiries and/or applications including a letter of interest, CV, and the names and contact information of two references to Dr. Sönke Zaehle (szaehle@bgc-jena.mpg.de), or directly to the institute's address

Max-Planck-Institut für Biogeochemie
Dr. Sönke Zaehle
Hans-Knöll-Straße 10
07745 Jena

Review of applications will begin on the 31th of May 2020. Web-based interviews are foreseen to take place beginning of June 2020.

Relevant links:

The Terrestrial Biosphere Modelling group:

<https://www.bgc-jena.mpg.de/bqi/index.php/Research/GlobalModelling>

The QUINCY project:

<https://www.bgc-jena.mpg.de/bqi/index.php/Projects/QUINCY>

We are looking forward to your application!